CHAPTER 1: INTRODUCTION
Reforms in the stock market form one of the major success stories of the Indian economic reforms. The Indian stock market has gained a position of prominence both in terms of number of companies listed and in terms of market capitalization. The breadth of the Indian market is increasing rapidly. This can be seen by the fact that the number of companies with a $15 billion plus market capitalization has more than tripled from 2001. Similarly, in the $1-5 billion market capitalization bracket, the number has more than doubled over the same period. Indeed the listing of large-capitalization companies like Oil and Natural Gas Corporation Ltd (ONGC), Tata Consultancy Services Ltd (TCS) and National Thermal Power Corporation Ltd (NTPC) is increasing the breadth of the market thereby making the market more attractive for the large and long-term investors.

While India’s investors population has remained stuck at two crores for over a decade, indications are that the number of investors entering the stock market will go up in the coming years. Returns on various savings instruments like bank deposits, post office deposits have fallen in the present low interest regime, making investment in stock markets worthwhile. Pension funds are also expected to enter the markets soon. The new generation of enterprising and dynamic youth is expected to be less risk averse than its earlier generation and have greater participation in the stock market.

Foreign investors find the stability and growth of Indian market vis-à-vis other emerging markets as a major incentive to invest in stocks of Indian companies. The good performance of the corporate sector along with satisfactory economy level indicators predicts an upward rising long-term trend for the market despite the rise being punctuated by short term volatility.

1.1 OBJECTIVE OF THE STUDY

One aspect of the market that is of great interest to all participants in the stock market is the stock price formation. It is now widely recognized that Sharpe (1964) and Lintner (1965) and Mossin’s (1966) Capital Asset Pricing Model (CAPM) and its other variants have little practical use. Most markets are dominated by stocks which show little covariance with the market index and whose returns can therefore be predicted only by looking at firm and industry specific factors. The hype associated with all sorts of dot.com companies and
media companies that pushed stock markets worldwide during the later part of nineties and early two thousand poses an interesting question as to whether such boom in technology and media stocks was justified by fundamentals or was it a mere fad? Using the behavioral inertia approach, the present study tries to show that the market was indeed driven by the craze surrounding such stocks.

In general, pricing models are used as a benchmark to determine the expected rate of return on an asset. This expected rate of return is then used as the discounting factor in a valuation model to determine price as the Net Present Value (NPV) of future stream of dividends. In this set up therefore, price is treated as an outcome of a two-step estimation process with expected rate of return estimated in the first step and price in the second step.

A very popular returns generation model is the Fama & French three-factor model. We fit a Fama and French model to the portfolios obtained by grouping sample stocks on the basis of various criteria of ranking. A joint test of all portfolios for each criterian is done in a multivariate framework to study the cross section of returns across portfolios.

Instead of the above mentioned two-step approach we propose a single step determination of price formation. Our approach differs from the usual approach of modeling stock price behavior in the following regards:

(1) Unlike conventional estimation procedures based on optimizing principles, which makes huge demand on investors’ knowledge, our approach is less information intensive.

In an uncertain world, individuals treat only direct experience as containing genuine information. On the basis of past experiences they derive inferences and therefore display inertia or habit persistence. Inertia is incorporated in the model by using lagged dependent variables. Apart from past prices individuals use various indicators (both firm level and economy level) in guessing future prices. How this information is incorporated in price formation varies across individuals. Such random behavior by individuals creates uncertainty and caprice. The uncertainty element is captured by the random error term. Caprice is also modeled as exhibiting inertia. So the current price is defined as a function of lagged prices and firm level variables and beta which measures the sensitivity of the stocks to movements in the market.
(2) Unlike the usual approach of choosing the model by looking at its fit on the sample data, our model is an outcome of an explicit theory of economic behavior and change. This has important implications for drawing inferences. A poor performance of the model observed either as misspecified errors or coefficients with wrong signs is treated as evidence against the theory. Again, as against the conventional method of adjusting the model, in our approach we reformulate the hypothesis regarding economic behavior by looking at the source of the problem. (3) Ours is a simple approach that allows for biases in individual behavior and treats them as incompletely rational. Therefore, our approach does not entail calculations of rationally expected returns, which in any case cannot be calculated in ex ante terms. (4) Following another behavior principle that investors seek comfort in familiarity and therefore do not hold a diversified portfolio, which would nullify industry associated risk, we estimated the model at the stock level. (5) The use of the technique of bootstrap in the study of Indian market is another distinct feature of the study. Though the model is consistently estimated by Ordinary Least Square (OLS), the presence of lagged dependent variables questions the unbiasedness of the OLS estimates. So we undertook a bootstrap estimation which gave us empirical refinements over using an asymptotic first order theory. The technique of recursive bootstrap is developed and used to test not only the model but also the Breusch-Godfrey higher order serial correlation diagnostic test.

1.2 CHAPTER SCHEME

This study is divided into six chapters and some appendices. This introductory chapter is followed by an outline of the growth of Indian stock market. A brief growth profile of U.S, U.K and Japanese stock market is also outlined. In the next chapter we discuss the various asset pricing models that are used in empirical work. The shortcomings of many popular models are also noted. This chapter evaluates the Fama and French model both theoretically and empirically.

In the next chapter we focus on the behavioral principles guiding an individual's behavior. Here we discuss the various biases that individuals are prone to. A behavioral model for describing stock price behavior is developed and its empirical testing is undertaken.
In Chapter 5 we elaborate on the technique of bootstrap. The econometric refinements associated with it are highlighted. A brief survey of the literature that reports the use of bootstrap is also done. We also report the results of bootstrapping the serial correlation LM test, and wald statistic for the test of inertia. Finally summary and conclusions of the study are given in chapter 6.